

DRAFT

Protection and Rerouting of Infrastructure

Description

Many types of infrastructure facilities are located in low-lying portions of the Delta where flooding and subsequent erosion or seismic events could threaten those facilities. Examples are the Mokelumne Aqueduct of East Bay Municipal Utilities District, the Santa Fe Railroad right-of-way from Stockton to Antioch, and State Routes 4, 12, and 16. Western Area Power Administration transmission lines, and Pacific Gas and Electric Company's gas storage facilities on McDonald Tract and transmission pipelines to the Bay Area. Reliability of these infrastructure facilities could be increased by either further protecting them in current locations or in some cases relocating them to more secure sites. For example, improvements to flood control facilities around McDonald Tract could increase protection of gas storage facilities there. In addition, rerouting of some infrastructure corridors might be considered if flood and seismic protection and other purposes (e.g., establishment of habitat corridors) could also be served by that rerouting.

This category includes the following actions:

- maintain/reconstruct levees around infrastructure,
- reconstruct infrastructure to increase reliability, and
- relocate/reroute infrastructure.

Purpose

Infrastructure facilities and associated corridors are critical for supplying energy, water, and transportation to the economy of the Bay-Delta region. These facilities must be protected from interruptions of service to avoid severe economic disruptions. Protection or rerouting of infrastructure facilities would be designed to reduce the vulnerability of these facilities to flooding and seismic damage or disruption.

Constraints

Protection of infrastructure facilities in their current locations would likely be less constrained than rerouting infrastructure corridors. Protection of current facility locations would normally entail maintaining existing levee systems and incrementally improving flood and seismic protection facilities. Environmental impacts and costs of such levee maintenance and incremental improvement would be

relatively less than designing, acquiring permits, constructing, and implementing mitigation for new infrastructure routes.

Linkage to Other CALFED Action Categories

Actions to protect or reroute infrastructure facilities can be linked with other actions, such as levee maintenance and stabilization (where existing levees are reasonably reliable), flood protection improvement (where existing levees are poorly built or sited), and establishment of long-term funding mechanisms (to fund joint efforts to sustain levee protection and infrastructure), to improve system reliability. Infrastructure protection or rerouting could also be combined with Delta aquatic and wetland habitat restoration to increase the benefits of the actions. Infrastructure rerouting might also be linked with establishment of floodways and meander belts or improvement of through-Delta conveyance to provide greater overall benefits for ecosystem quality and water supply.